comply with the requirements in §63.504(c).

[62 FR 46925, Sept. 5, 1996, as amended at 65 FR 38065, June 19, 2000; 76 FR 22589, Apr. 21, 2011]

§63.495 Back-end process provisions—procedures to determine compliance with residual organic HAP limitations using stripping technology and organic HAP emissions limitations.

(a) If an owner or operator complies with the residual organic HAP limitations in §63.494(a)(1) through (3) using stripping technology, compliance shall be demonstrated using the periodic sampling procedures in paragraph (b) of this section, or using the stripper parameter monitoring procedures in paragraph (c) of this section. The owner or operator shall determine the monthly weighted average residual organic HAP content for each month in which any portion of the back-end of an elastomer production process is in operation. A single monthly weighted average shall be determined for all back-end process operations at the affected source.

(b) If the owner or operator is demonstrating compliance using periodic sampling, this demonstration shall be in accordance with paragraphs (b)(1) through (b)(5) of this section,

(1) The location of the sampling shall be in accordance with paragraph (d) of this section.

(2) The frequency of the sampling shall be in accordance with paragraphs (b)(2)(i) or (b)(2)(ii) of this section.

(i) If a stripper operated in batch mode is used, at least one representative sample is to be taken from every batch of elastomer produced, at the location specified in paragraph (d) of this section, and identified by elastomer type and by the date and time the batch is completed.

(ii) If a stripper operated in continuous mode is used, at least one representative sample is to be taken each operating day. The sample is to be taken at the location specified in paragraph (d) of this section, and identified by elastomer type and by the date and time the sample was taken.

(3) The residual organic HAP content in each sample is to be determined using the Methods specified in paragraph (e) of this section.

(4) The quantity of material (weight of latex or dry crumb rubber) represented by each sample shall be recorded. Acceptable methods of determining this quantity are production records, measurement of stream characteristics, and engineering calculations.

(5) The monthly weighted average shall be determined using the equation in paragraph (f) of this section. All representative samples taken and analyzed during the month shall be used in the determination of the monthly weighted average.

(c) If the owner or operator is demonstrating compliance using stripper parameter monitoring, this demonstration shall be in accordance with paragraphs (c)(1) through (c)(4) of this section.

(1) The owner or operator shall establish stripper operating parameter levels for each grade in accordance with §63.505(e).

(2) The owner or operator shall monitor the stripper operating parameters at all times the stripper is in operation. Readings of each parameter shall be made at intervals no greater than 15 minutes.

(3) The residual organic HAP content for each grade shall be determined in accordance with either paragraph (c)(3)(i) or (c)(3)(ii) of this section.

(i) If during the processing of a grade in the stripper, all hourly average parameter values are in accordance with operating parameter levels established in paragraph (c)(1) of this section, the owner or operator shall use the residual organic HAP content determined in accordance with §63.505(e)(1).

(ii) If during the processing of a grade in the stripper, the hourly average of any stripper monitoring parameter is not in accordance with an established operating parameter level, the residual organic HAP content shall be determined using the procedures in paragraphs (b)(1) and (b)(3) of this section.

(4) The monthly weighted average shall be determined using the equation in paragraph (f) of this section.

(d) The location of the sampling shall be in accordance with paragraph (d)(1) or (d)(2) of this section.

(1) For styrene butadiene rubber produced by the emulsion process, the sample shall be a sample of the latex taken at the location specified in either paragraph (d)(1)(i), (d)(1)(ii), or (d)(1)(iii) of this section.

(i) When the latex is not blended with other materials or latexes, the sample shall be taken at a location meeting all of the following criteria:

(A) After the stripping operation,

(B) Prior to entering the coagulation operations, and

(C) Before the addition of carbon black or oil extenders.

(ii) When two or more latexes subject to this subpart are blended, samples may be taken in accordance with either paragraph (d)(1)(ii) (A) or (B) of this section, at a location meeting the requirements of paragraphs (d)(1)(i) (A) through (C) of this section.

(A) Individual samples may be taken of each latex prior to blending, or

(B) A sample of the blended latex may be taken.

(iii) When a latex subject to this subpart is blended with a latex or material not subject to this subpart, a sample shall be taken of the latex prior to blending at a location meeting the requirements of paragraphs (d)(1)(i) (A) through (C) of this section.

(2) For styrene butadiene rubber produced by the solution process, polybutadiene rubber produced by the solution process, and ethylene-propylene rubber produced by the solution process, the sample shall be a sample of crumb rubber taken as soon as safe and feasible after the stripping operation, but no later than the entry point for the first unit operation following the stripper (e.g., the dewatering screen).

(e) The residual organic HAP content in each sample is to be determined using the methods specified in paragraphs (e)(1) through (e)(5) of this section, as applicable.

(1) For styrene butadiene rubber produced by the emulsion process, either Method 312a, 312b, or 312c of 40 CFR part 63, appendix A, shall be used.

(2) For styrene butadiene rubber produced by the solution process, either Method 313a or 313b of 40 CFR part 63, appendix A, shall be used.

(3) For polybutadiene rubber produced by the solution process, either Method 313a or 313b of 40 CFR part 63, appendix A, shall be used.

(4) For ethylene-propylene rubber produced by the solution process, either Method 310a, 310b, or 310c of 40 CFR part 63, appendix A, shall be used.

(5) Alternatively, any other method that has been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, may be used.

(f) The monthly weighted average residual organic HAP content shall be calculated using Equation 26.

$$HAPCONT_{avg,mo} = \frac{\sum_{i-1}^{n}(C_i)(P_i)}{P_{mo}} \qquad \text{[Eq. 26]}$$

Where:

$HAPCONT_{avg,mo}$ = Monthly weighted average organic HAP content for all rubber processed at the affected source, kg organic HAP per Mg latex or dry crumb rubber.

n = Number of samples in the month.

C_i = Residual organic HAP content of sample i, determined in accordance with paragraph (b)(3) or (c)(3) of this section, kg organic HAP per Mg latex or dry crumb rubber.

P_i = Weight of latex or dry crumb rubber represented by sample i.

P_{mo} = Weight of latex or dry crumb rubber (Mg) processed in the month.

(g) Compliance with the organic HAP emission limitations determined in accordance with §63.494(a)(4) shall be demonstrated in accordance with paragraphs (g)(1) through (5) of this section.

(1) Calculate your organic HAP emission limitation in accordance with §63.494(a)(4)(i) through (iv), as applicable, record it, and submit it in accordance with §63.499(f)(1).

(2) Each month, calculate and record the organic HAP emissions from all back-end process operations using engineering assessment. Engineering assessment includes, but is not limited to, the following:

(i) Previous test results, provided the test was representative of current operating practices.

(ii) Bench-scale or pilot-scale test data obtained under conditions representative of current process operating conditions.

(iii) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(A) Use of material balances;

(B) Estimation of flow rate based on physical equipment design, such as pump or blower capacities;

(C) Estimation of organic HAP concentrations based on saturation conditions; and

(D) Estimation of organic HAP concentrations based on grab samples of the liquid or vapor.

(3) Each month, record the mass of elastomer product produced.

(4) Each month, calculate and record the sums of the organic HAP emissions and the mass of elastomer produced for the previous calendar 12-month period.

(5) Each month, divide the total mass of organic HAP emitted for the previous calendar 12-month period by the total mass of elastomer produced during this 12-month period. This value must be recorded in accordance with §63.498(e) and reported in accordance with §63.499(f)(2).

[62 FR 46925, Sept. 5, 1996, as amended at 64 FR 11543, Mar. 9, 1999; 65 FR 38066, June 19, 2000; 76 FR 22590, Apr. 21, 2011]

§63.496 Back-end process provisions—procedures to determine compliance with residual organic HAP limitations using control or recovery devices.

(a) If an owner or operator complies with the residual organic HAP limitations in §63.494(a)(1) through (3) using control or recovery devices, compliance shall be demonstrated using the procedures in paragraphs (b) and (c) of this section. Previous test results conducted in accordance with paragraphs (b)(1) through (6) of this section may be used to determine compliance in accordance with paragraph (c) of this section.

(b) Compliance shall be demonstrated using the provisions in paragraphs (b)(1) through (b)(8) of this section, as applicable.

(1) A test shall be conducted, the duration of which shall be in accordance with either paragraph (b)(1)(i) or (b)(1)(ii) of this section, as appropriate.

(i) If the back-end process operations are continuous, the test shall consist of three separate one hour runs.

(ii) If the back-end process operations are batch, the test shall consist of three separate one-hour runs, unless the duration of the batch cycle is less than one-hour, in which case the run length shall equal the complete duration of the back-end process batch cycle.

(2) The test shall be conducted when the grade of elastomer product with the highest residual organic HAP content leaving the stripper is processed in the back-end operations.

(3) The uncontrolled residual organic HAP content in the latex or dry crumb rubber shall be determined in accordance with §63.495(b)(1) and (b)(3). A separate sample shall be taken and analyzed for each test run. The sample shall be representative of the material being processed in the back-end operation during the test, and does not need to be taken during the test.

(4) The quantity of material (weight of latex or dry crumb rubber) processed during the test run shall be recorded. Acceptable methods of determining this quantity are production records, measurement of stream characteristics, and engineering calculations.

(5) The inlet and outlet emissions from the control or recovery device shall be determined using the procedures in paragraphs (b)(5)(i) through (b)(5)(v) of this section, with the exceptions noted in paragraphs (b)(6) and (b)(7) of this section. The inlet and outlet emissions shall be determined when the material for which the uncontrolled residual organic HAP content is determined in accordance with paragraph (b)(3) of this section, is being